A Monthly Report from The Conference Board

# INTERNATIONAL ECONOMIC SCOREBOARD

The Conference Board

OCTOBER, 1984

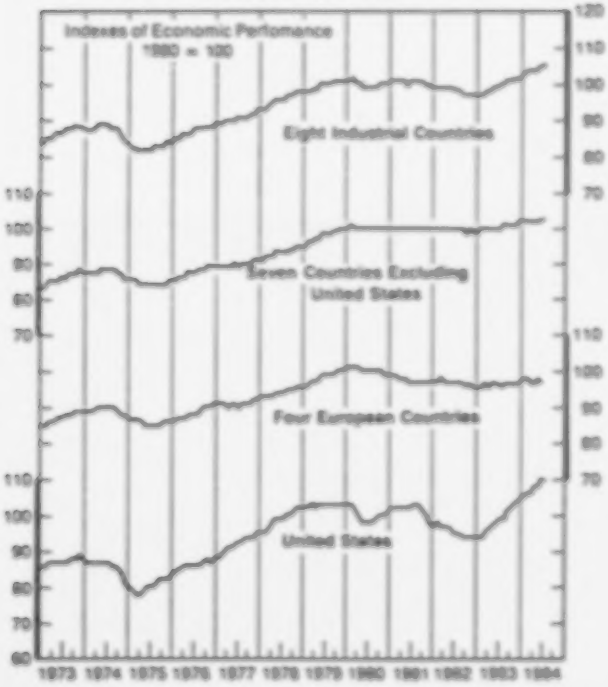
## SUMMARY

Australia is clearly the front runner among the eight industrial countries, with a 10½ annual growth rate in its leading index, and 11% in its performance index. In the United States, Canada, and Japan the leading indexes are signaling slower growth ahead, but expansion is continuing. The latest performance index growth rates are 8% for the U.S., 6% for Canada, and 4% for Japan. In Europe, Italy's indexes show that recovery may have started last spring, but in the United Kingdom, West Germany and France the recovery seems to be stalling.

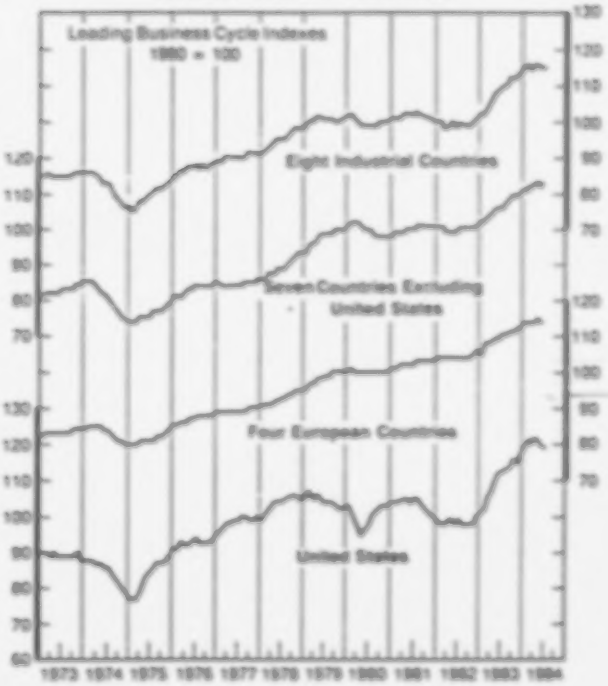
| | Ten-year Growth Rate 1969-79 | Indexes of Economic Performance Growth Rates* 6 mos. ago | 3 mos. ago | Latest month | Leading Business Cycle Indexes Growth Rates* 6 mos. ago | 3 mos. ago | Latest month | Current Reading on the Cycle | Latest Month Covered |
|---|---|---|---|---|---|---|---|---|---|
| | annual rates, percent | | | | | | | | |
| United States | 3 | 13 | 11 | 8 | 17 | 9 | 2 | Expansion slowing | Aug. |
| Canada | 4 | 5 | 4 | 6 | 9 | 7 | 4 | Expansion continuing | July |
| United Kingdom | 2 | 2 | 1 | 0 | 3 | 2 | 1 | Recovery stalling | July |
| West Germany | 3 | 5 | 2 | 0 | 8 | 4 | 3 | Recovery stalling | July |
| France | 4 | - 1 | 0 | 1 | 11 | 9 | 3 | Recovery stalling | Aug./July |
| Italy | 3 | 0 | - 1 | 1 | 5 | 9 | 7 | Recovery getting under way | [illegible] May |
| Japan | 5 | 4 | 5 | 4 | 12 | 11 | 8 | Expansion continuing | July |
| Australia | 4 | 8 | 11 | 11 | 11 | 9 | 10 | Expansion continuing | July |
| 8 countries | 3 | 7 | 6 | 6 | 12 | 8 | 3 | Expansion slowing | July |
| 7 countries ex. U.S. | 4 | 3 | 3 | 3 | 9 | 7 | 4 | Expansion continuing | July |
| 4 European countries | 3 | 2 | 1 | 2 | 8 | 5 | 2 | Recovery stalling | July |

*Annual rate based on ratio of current month's index to average index over the preceding 12 months.

## Where We Are


Indexes of Economic Performance
1980 = 100
Eight Industrial Countries
Seven Countries Excluding United States
Four European Countries
United States
1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984

## Where We're Headed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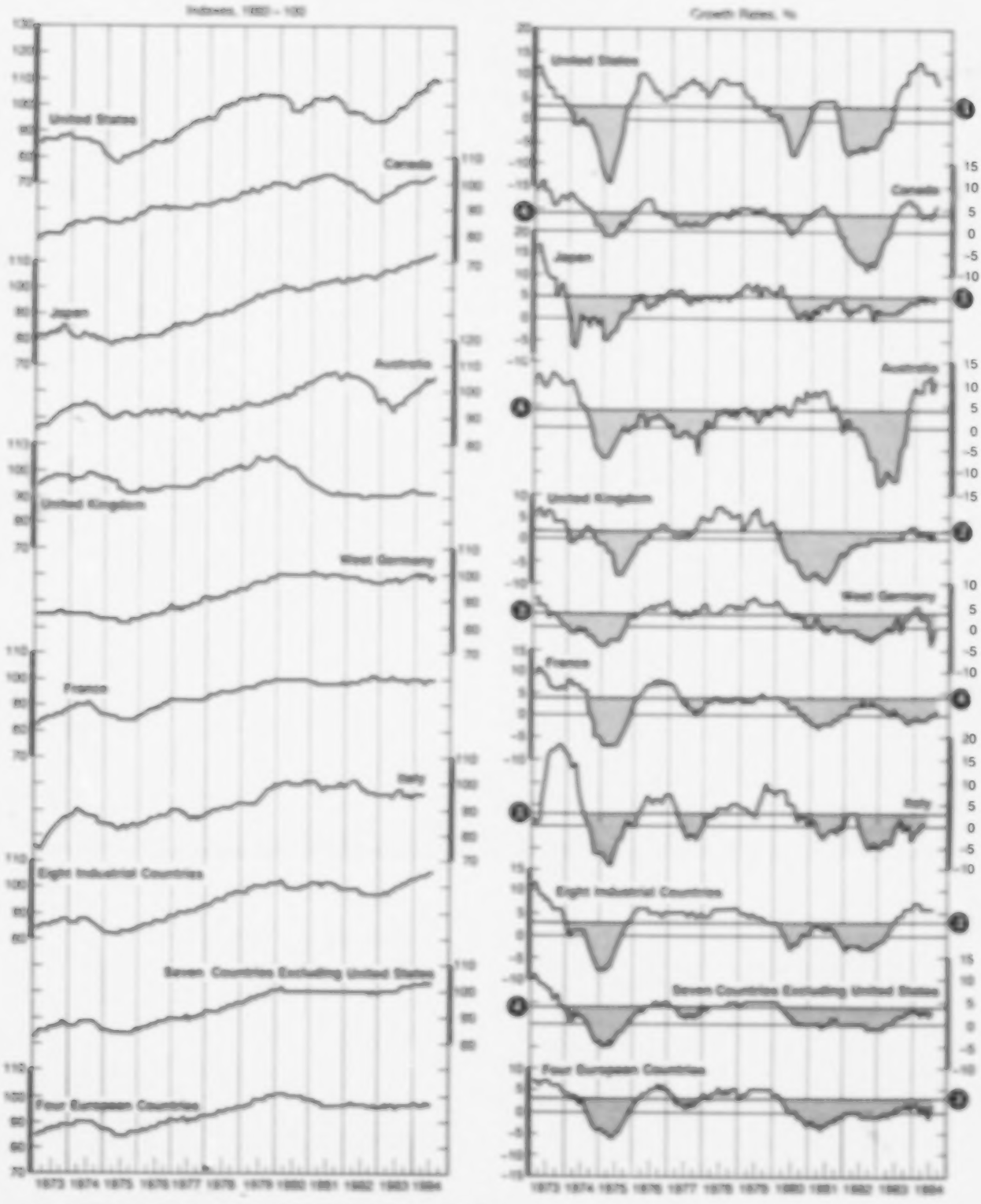
## Where We Are

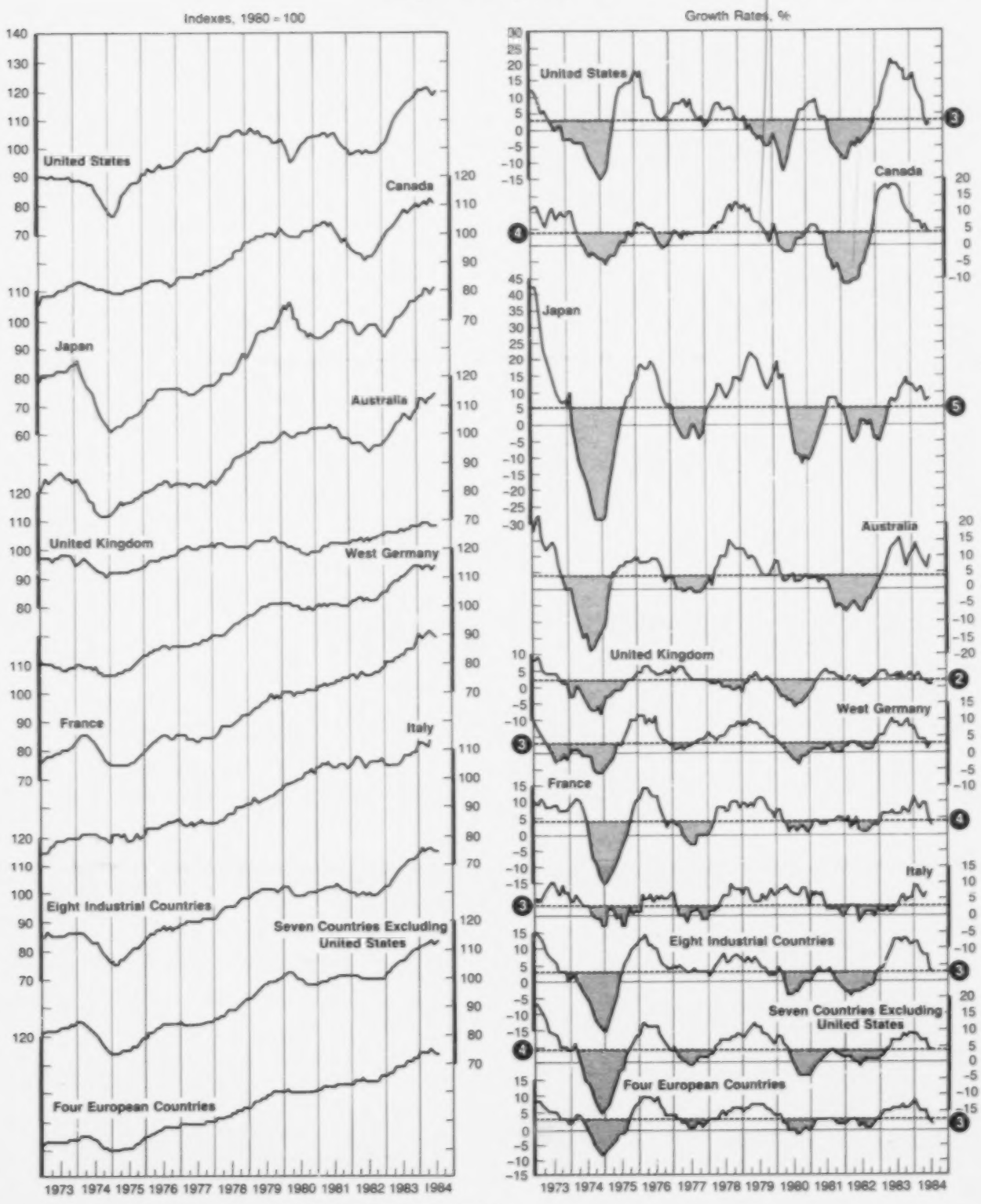
### Indexes of Economic Performance




Note: Horizontal dashed lines are average growth rates for 1960-76 in the index and in real GNP.
Source: The Conference Board

## Where We're Headed

**Leading Business Cycle Indexes**




Note: Horizontal dash lines are average growth rates for 1969-79 in the index and in real GNP.
Source: The Conference Board

## NEW INDEXES FOR TAIWAN, R.O.C.

New business cycle measures have been compiled for Taiwan, comparable to the leading index and economic performance indexes for the eight industrial countries regularly reported in the Scoreboard. The new indexes show that a cyclical recovery got under way in the Taiwanese economy in October 1982, and that this recovery continues at a vigorous pace, with double-digit growth rates in both the leading and performance indexes (see Table 1 and charts). Recent growth rates of the leading index, moreover, suggest that the expansion has not yet run its course; indeed, at last report it is still running under a good head of steam.

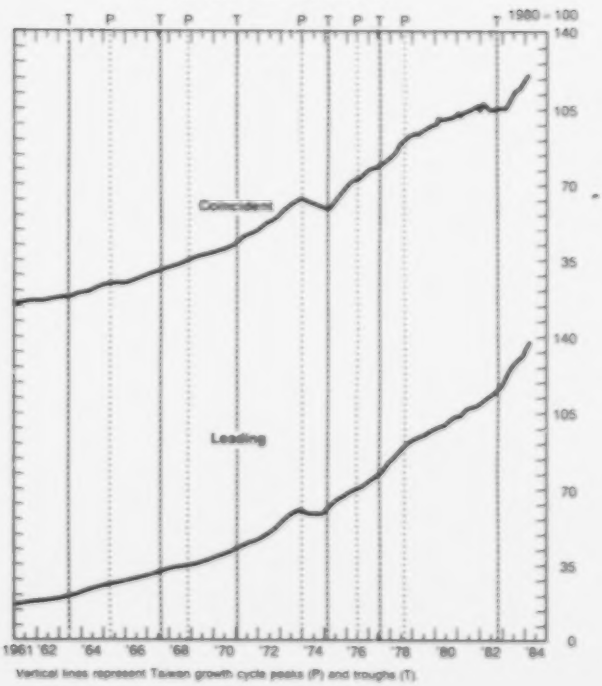
Taiwan's recovery started at about the same time as in the United States and eight months before Japan. Those are the two countries with the closest links to Taiwan's economy. About 40% of Taiwanese exports go to the United States and about 10% to Japan. The United States and Japan each supply about one-fourth of Taiwan's imports.

One additional interesting fact revealed in Table 1 is the extraordinary long-term growth of Taiwan's economy. Its 10 percent annual growth rate during the decade of the 1970s was three times as fast as the average of the major industrial economies.

**Table 1. Recent Growth Rates, Taiwan and Other Countries**

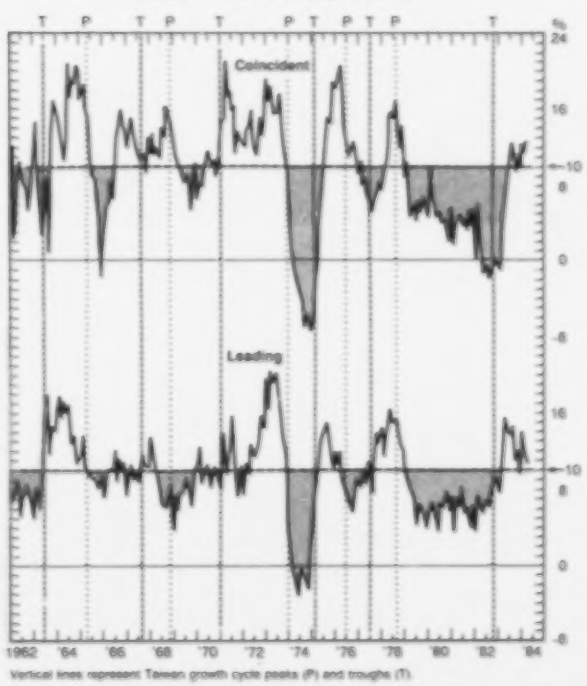
| | *Ten-year Growth Rates 1969–1979* | *Six Months Ago* | *Three Months Ago* | *Latest Month* | *Latest Month Covered* |
|---|---|---|---|---|---|
| | | | *Annual rates, percent* | | |
| Leading Indexes | | | | | |
| Taiwan | 10 | 11 | 14 | 11 | April |
| Eight countries | 3 | 12 | 8 | 3 | July |
| Economic performance indexes | | | | | |
| Taiwan | 10 | 12 | 10 | 13 | March |
| Eight countries | 3 | 7 | 6 | 6 | July |

Chart 1. **Taiwan Indexes, 1961-84**




Vertical lines represent Taiwan growth cycle peaks (P) and troughs (T).

Chart 2. **Taiwan Growth Rates, 1962-84**




Vertical lines represent Taiwan growth cycle peaks (P) and troughs (T).

**Table 2. MEDIAN LEADS AND LAGS OF LEADING INDICATORS AT GROWTH CYCLE PEAKS AND TROUGHS, THREE COUNTRIES**

| Indicator, U.S. Title | Taiwan | United States | Japan |
|---|---|---|---|
| | *Lead (–) or Lag (+), in months* | | |
| Average workweek, manufacturing | – 9 | – 2 | – 4 |
| New unemployment claims | NA | – 2 | NA |
| New orders, consumer goods | – 1 | – 2 | NA |
| Formation of business enterprises | NA | – 4 | –13 |
| Contracts and orders, plant and equipment | NA | – 2 | – 4 |
| Building permits, housing | – 6 | – 7 | – 9 |
| Change in business inventories | NA | – 1 | – 2 |
| Change in industrial materials prices | NA | – 4 | – 7 |
| Stock price index | – 1 | – 4 | – 6 |
| Profits | NA | – 2 | –10 |
| Ratio, price to unit labor cost | NA | – 7 | – 2 |
| Change in consumer debt | NA | – 4 | – 7 |
| *Exports, in constant prices | – 4 | | |
| *Money supply (M1), in constant prices | – 4 | | |
| Composite leading index | – 2 | – 2 | – 4 |

*Used for Taiwan only.
Source: Center for International Business Cycle Research, Columbia Business School

Table 2 lists the individual leading indicators that are combined to make up the composite leading indexes for Taiwan and its big trading partners, showing for each series the average lead time, in months, in advance of economic downturns and upturns. These indicators reflect decisions or commitments to economic activity in the months ahead or factors influencing these decisions.

As in the case of other countries, some of Taiwan's indicators are only roughly equivalent to those for the United States. For example, average monthly working hours in manufacturing is used in place of the average workweek, and new orders for manufactured goods is used in place of new orders for consumer goods. There are also some gaps where no series is available. In view of the "island economy" character of Taiwan, we include exports in constant prices as a leading indicator. Also, money supply (M1) in constant dollars is included. As the table shows, the typical lead times for the Taiwanese indicators closely resemble those for the other two countries. Hence the leading index for Taiwan, constructed from six series, has given reliable early warning signals of recession and recovery since 1961.

**Table 3. TAIWAN INDEXES AND GROWTH RATES**

| | *Indexes (1980 = 100)* | | *Growth Rates (%, Annual Rate)* | |
|---|---|---|---|---|
| | *Economic Performance* | *Leading* | *Economic Performance* | *Leading* |
| **1982** | | | | |
| Jan. | 104 | 108 | 0 | 4 |
| Feb. | 108 | 111 | 6 | 7 |
| Mar. | 107 | 111 | 4 | 6 |
| Apr. | 106 | 111 | 1 | 6 |
| May | 105 | 111 | – 1 | 6 |
| June | 105 | 112 | – 1 | 7 |
| July | 105 | 113 | – 1 | 7 |
| Aug. | 105 | 113 | – 2 | 6 |
| Sept. | 105 | 115 | – 1 | 8 |
| Oct. | 105 | 115 | – 2 | 8 |
| Nov. | 106 | 117 | 1 | 9 |
| Dec. | 106 | 117 | 0 | 9 |
| **1983** | | | | |
| Jan. | 105 | 117 | – 1 | 8 |
| Feb. | 105 | 118 | – 1 | 8 |
| Mar. | 107 | 121 | 3 | 12 |
| Apr. | 108 | 124 | 6 | 15 |
| May | 109 | 125 | 7 | 14 |
| June | 111 | 126 | 10 | 14 |
| July | 113 | 127 | 11 | 14 |
| Aug. | 114 | 129 | 13 | 15 |
| Sept. | 114 | 129 | 12 | 13 |
| Oct. | 114 | 129 | 10 | 11 |
| Nov. | 116 | 131 | 11 | 12 |
| Dec. | 116 | 131 | 10 | 10 |
| **1984** | | | | |
| Jan. | 118 | 135 | 12 | 14 |
| Feb. | 119 | 135 | 12 | 11 |
| Mar. | 121 | 137 | 13 | 12 |
| Apr. | * | 137 | * | 11 |

Source: Center for International Business Cycle Research, Columbia Business School

In view of the encouraging results of this research—which was conducted at the Center for International Business Cycle Research by Pin-Jan Ku of the Directorate-General of Budget, Accounting and Statistics, Executive Yuan, Republic of China, the Center and The Conference Board hope to be able to complete arrangements soon to keep the figures up to date and report them regularly in this publication.

## INDEXES, EIGHT COUNTRIES, 1983-84

| | | U.S. | | Canada | | U.K. | | West Germany | France | | Italy | | Japan | | Australia | | 8 Countries | | 7 Countries ex. U.S. | | 4 Countries Europe | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Indexes, 1980 = 100 | | | | | | | | | | | | | | | | | | | | |
| | | Perf. | Lead. | Perf. | Lead. | Perf. | Lead. | Perf. | Lead. | Perf. | Lead. | Perf. | Lead. | Perf. | Lead. | Perf. | Lead. | Perf. | Lead. | Perf. | Lead. | Perf. | Lead |
| Apr. | 83 | 96 | 107 | 97 | 102 | 91 | 106 | 97 | 108 | 100 | 111 | 96 | 105 | 107 | 97 | 94 | 101 | 98 | 105 | 100 | 104 | 96 | 108 |
| May | 83 | 97 | 109 | 98 | 103 | 91 | 106 | 98 | 109 | 101 | 112 | 95 | 105 | 107 | 99 | 93 | 103 | 99 | 107 | 100 | 105 | 97 | 109 |
| June | 83 | 98 | 111 | 99 | 104 | 91 | 106 | 98 | 109 | 100 | 112 | 96 | 105 | 108 | 101 | 95 | 104 | 99 | 108 | 100 | 106 | 97 | 109 |
| July | 83 | 99 | 112 | 99 | 105 | 91 | 107 | 97 | 110 | 100 | 113 | 97 | 106 | 108 | 101 | 95 | 105 | 100 | 109 | 100 | 106 | 96 | 109 |
| Aug. | 83 | 99 | 113 | 100 | 107 | 91 | 106 | 98 | 110 | 100 | 113 | 97 | 108 | 109 | 102 | 96 | 107 | 100 | 110 | 101 | 107 | 97 | 110 |
| Sept. | 83 | 101 | 114 | 100 | 108 | 92 | 107 | 98 | 111 | 100 | 115 | 96 | 108 | 109 | 103 | 96 | 107 | 101 | 111 | 101 | 108 | 97 | 111 |
| Oct. | 83 | 102 | 116 | 101 | 107 | 92 | 107 | 98 | 112 | 99 | 115 | 96 | 108 | 109 | 104 | 98 | 106 | 101 | 112 | 101 | 109 | 97 | 111 |
| Nov. | 83 | 103 | 116 | 101 | 108 | 93 | 108 | 99 | 113 | 100 | 115 | 96 | 109 | 110 | 106 | 99 | 105 | 102 | 112 | 101 | 110 | 97 | 112 |
| Dec. | 83 | 104 | 117 | 101 | 109 | 93 | 108 | 100 | 114 | 100 | 117 | 95 | 109 | 110 | 106 | 100 | 108 | 102 | 113 | 102 | 110 | 97 | 112 |
| Jan. | 84 | 105 | 119 | 101 | 110 | 92 | 108 | 100 | 114 | 100 | 120 | 96 | 112 | 110 | 107 | 100 | 109 | 103 | 114 | 102 | 111 | 98 | 114 |
| Feb. | 84 | 106 | 121 | 101 | 109 | 92 | 108 | 101 | 114 | 100 | 119 | 96 | 112 | 111 | 108 | 101 | 112 | 104 | 116 | 102 | 111 | 98 | 114 |
| Mar. | 84 | 106 | 120 | 101 | 110 | 92 | 109 | 99 | 113 | 100 | 119 | 96 | 112 | 111 | 108 | 102 | 112 | 104 | 115 | 102 | 112 | 97 | 114 |
| Apr. | 84 | 108 | 121 | 102 | 111 | 92 | 109 | 100 | 114 | 99 | 120 | 96 | 111 | 112 | 110 | 103 | 111 | 104 | 116 | 102 | 112 | 97 | 114 |
| May | 84 | 108 | 121 | 102 | 110 | 92 | 109 | 100 | 114 | 100 | 121 | | 113 | 112 | 110 | 105 | 112 | 105 | 116 | 103 | 113 | 98 | 115 |
| June | 84 | 110 | 120 | 103 | 112 | 92 | 108 | 97 | 113 | 100 | 120 | | | 112 | 109 | 104 | 112 | 105 | 115 | 102 | 112 | 97 | 114 |
| July | 84 | 109 | 118 | 104 | 111 | 92 | 108 | 99 | 114 | 100 | 119 | | | 113 | 111 | 106 | 114 | 106 | 115 | 103 | 113 | 98 | 114 |
| Aug. | 84 | 110 | 120 | | | | | | | | | | | | | | | | | | | | |
| | | Growth Rates, Percent | | | | | | | | | | | | | | | | | | | | | |
| Apr. | 83 | 2 | 15 | 2 | 18 | 0 | 3 | -1 | 8 | 0 | 6 | -4 | 1 | 1 | 1 | -12 | 9 | 1 | 9 | 0 | 5 | -1 | 5 |
| May | 83 | 5 | 18 | 4 | 17 | 0 | 3 | 1 | 10 | 1 | 7 | -4 | 1 | 1 | 6 | -12 | 12 | 2 | 11 | 0 | 7 | 0 | 6 |
| June | 83 | 7 | 21 | 5 | 18 | 0 | 3 | 2 | 9 | 0 | 6 | -1 | 2 | 2 | 8 | - 8 | 13 | 3 | 13 | 1 | 7 | 0 | 6 |
| July | 83 | 8 | 20 | 6 | 18 | 0 | 4 | -1 | 9 | 0 | 6 | 1 | 3 | 2 | 7 | - 5 | 14 | 4 | 13 | 1 | 7 | 0 | 6 |
| Aug. | 83 | 8 | 20 | 6 | 18 | 1 | 2 | 1 | 8 | 0 | 6 | 2 | 5 | 3 | 8 | - 4 | 16 | 4 | 12 | 2 | 7 | 1 | 6 |
| Sept. | 83 | 10 | 18 | 7 | 17 | 2 | 4 | 2 | 8 | -1 | 8 | -1 | 6 | 3 | 11 | - 1 | 14 | 5 | 13 | 2 | 9 | 1 | 7 |
| Oct. | 83 | 11 | 18 | 7 | 13 | 2 | 3 | 2 | 9 | -2 | 7 | 0 | 4 | 4 | 12 | 3 | 10 | 6 | 13 | 2 | 8 | 1 | 6 |
| Nov. | 83 | 11 | 15 | 6 | 12 | 3 | 3 | 3 | 10 | -1 | 6 | 0 | 5 | 4 | 14 | 6 | 7 | 6 | 12 | 3 | 9 | 2 | 6 |
| Dec. | 83 | 12 | 15 | 6 | 10 | 3 | 4 | 4 | 8 | -1 | 8 | -3 | 5 | 4 | 12 | 9 | 10 | 6 | 11 | 3 | 9 | 1 | 7 |
| Jan. | 84 | 13 | 15 | 5 | 9 | 2 | 3 | 5 | 8 | 0 | 11 | -1 | 9 | 4 | 12 | 8 | 11 | 7 | 12 | 3 | 9 | 2 | 8 |
| Feb. | 84 | 13 | 17 | 4 | 7 | 1 | 3 | 4 | 6 | -1 | 9 | -1 | 9 | 5 | 11 | 8 | 14 | 7 | 12 | 3 | 8 | 2 | 6 |
| Mar. | 84 | 11 | 12 | 3 | 7 | 1 | 4 | 2 | 4 | -1 | 8 | 0 | 7 | 4 | 10 | 11 | 11 | 6 | 9 | 2 | 7 | 0 | 5 |
| Apr. | 84 | 11 | 10 | 4 | 7 | 1 | 2 | 2 | 4 | -1 | 9 | 1 | 5 | 5 | 11 | 11 | 9 | 6 | 8 | 3 | 7 | 1 | 5 |
| May | 84 | 11 | 9 | 3 | 5 | 0 | 2 | 2 | 4 | 0 | 9 | | 7 | 5 | 10 | 12 | 8 | 6 | 8 | 3 | 7 | 1 | 5 |
| June | 84 | 11 | 4 | 4 | 6 | 1 | 1 | -4 | 1 | 0 | 5 | | | 4 | 7 | 8 | 6 | 6 | 4 | 2 | 4 | -1 | 3 |
| July | 84 | 9 | 1 | 6 | 4 | 0 | 1 | 0 | 3 | 0 | 3 | | | 4 | 8 | 11 | 10 | 6 | 3 | 3 | 4 | 2 | 2 |
| Aug. | 84 | 8 | 2 | | | | | | | 1 | | | | | | | | | | | | | |
| | | Ten Year Annual Growth Rate, Percent | | | | | | | | | | | | | | | | | | | | | |
| 1969-79 | | 3 | 3 | 4 | 4 | 2 | 2 | 3 | 3 | 4 | 4 | 3 | 3 | 5 | 5 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 |

## THE INTERNATIONAL ECONOMIC INDICATOR SYSTEM

Each issue of the *Scoreboard* includes indexes of economic performance for the major industrial nations as well as the leading indexes. The economic performance indexes are composites of such series as real GNP, industrial production, employment and sales—what analysts call "coincident" series, because they *define* the business cycle.

The leading indexes are composites of such series as new orders, construction contracts, corporate profits and stock prices—indicators that usually anticipate changes in production and employment by several months. Thus the indexes of economic performance tell us the current status of the business cycle, i.e., where we are, while the leading indexes tell us where the economy is headed.

Experience has shown that when the leading index begins to rise faster, it is a fairly safe rule that the economy will soon begin to rise faster too—typically after three or four months. When the leading index begins to rise more slowly or to decline, the economy is likely to follow suit shortly thereafter. (For details, see "What the Leading Indicators Indicate," *Across the Board*, April 1980 and *Business Cycles, Inflation and Forecasting*, Ballinger Publishing Co., 1983.) Considerable variation in the length of lead is to be expected, however. Constant monitoring is needed to make effective use of the system and get early warnings of recessions and recoveries, changes in foreign trade flows, and new inflationary trends.

The indexes for the eight industrial nations were developed by Geoffrey H. Moore and Philip A. Klein, and are maintained by the Center for International Business Cycle Research at the Columbia Business School. (The U.S. indexes used here differ slightly from the indexes reported monthly by the U.S. Dept. of Commerce.) To facilitate analysis the indexes are adjusted so their long-run growth rates, 1969-79, are equal to those in real GNP in the country concerned. These growth rates are shown at the bottom of the table on the back page and by horizontal lines on the right panel of the charts on pages 2 and 3.

### For More Information

To find out more about this indicator system and the availability of detailed data for each country please address inquiries to:

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